

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
29 September 2005 (29.09.2005)

PCT

(10) International Publication Number  
**WO 2005/089874 A1**

(51) International Patent Classification<sup>7</sup>: **A62B 9/02**, 18/10

(21) International Application Number:  
PCT/GB2005/050038

(22) International Filing Date: 17 March 2005 (17.03.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
0406288.1 19 March 2004 (19.03.2004) GB

(71) Applicant (for all designated States except US): **SCOTT HEALTH & SAFETY LTD** [GB/GB]; Pimbo Road, West Pimbo, Skelmersdale Lancashire WN8 9RA (GB).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **SUTTON, Robert Charles** [GB/GB]; 45 Hampton Road, Southport Lancashire PR8 6SR (GB).

(74) Agents: **BOYDELL, John Christopher** et al.; Stevens Hewlett & Perkins, Halton House 20/23 Holborn, London EC1N 2JD (GB).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

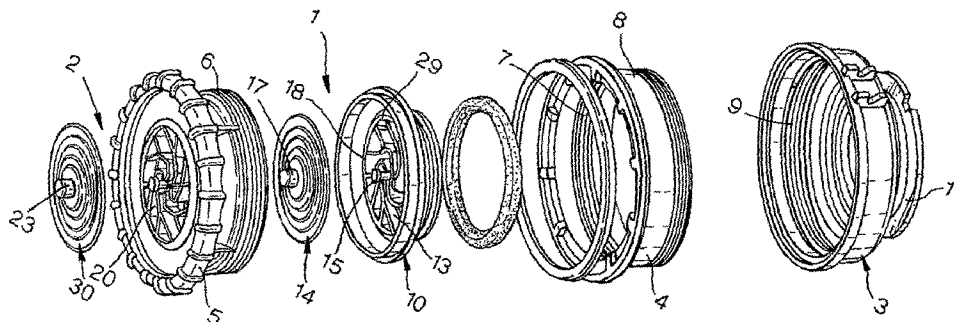
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

**Published:**

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: RESPIRATORS



(57) Abstract: An exhalation valve assembly for a respirator, said assembly comprising an upstream one-way flap valve (1) and a downstream one-way flap valve (2), both mounted within a housing (3,4,5). The valves (1,2) are spaced apart to define therebetween a volume (25) which acts as a "dead space" in which a portion of the just-exhaled air will rest so that, should the upstream valve leak for any reason, any leakage air drawn back into the respirator will be taken from this just-exhaled air, and will thus not be contaminated by the ambient air.

WO 2005/089874 A1